REMARKS

This Amendment is in response to the Office Action of March 1, 2002. Applicant respectfully submits that all the claims presently on file are in condition for allowance, which action is earnestly solicited.

THE SPECIFICATION

Applicant has amended the specification to update the information on page 1 of the specification, which information was not available at the time of filing the present patent application.

THE CLAIMS

REJECTION UNDER 325 USC 103

Claims 1-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Paepke (US 6,249,785B1) in view of Bowman et al. (US 6,185,558B1). Applicant respectfully traverses this rejection and submits that the claims on file are not obvious in view of the Paepke and Bowman et al. patents, and are patentable thereover. In support of this position, Applicant submits the following arguments:

A. Legal Standards for Obviousness

The following are court opinions set the general standards in support of Applicant's position of non obviousness, with emphasis added for added clarity:

- "**Obviousness cannot be established** by combining the teachings of the prior art to produce the claimed invention, **absent some teaching or suggestion** supporting the combination." *In re Fine, 837 F.2d at 1075, 5 USPQ2d at 1598 (citing ACS Hosp. Sys. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).* **What a reference teaches** and whether it teaches toward or

away from the claimed invention are questions of fact. See *Raytheon Co. v. Roper Corp., 724 F.2d 951, 960-61, 220 USPQ 592, 599-600 (Fed. Cir. 1983),* cert. denied, *469 U.S. 835, 83 L. Ed. 2d 69, 105 S. Ct. 127 (1984).* "

- "When a rejection depends on a combination of prior art references, there must be **some teaching, suggestion, or motivation** to combine the references. See *In re Geiger,* 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)."

- "With respect to core factual findings in a determination of patentability, however, the **Board cannot simply reach conclusions based on its own understanding or experience** -- or on its assessment of what would be basic knowledge or common sense. **Rather, the Board must point to some concrete evidence in the record** in support of these findings." See In re Zurko, 258 F.3d 1379 (Fed. Cir. 2001).

- "We have noted that **evidence of a suggestion, teaching, or motivation to combine** may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg. v. SGS Imports Intern., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references," Rouffet, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, **the showing must be clear and particular**. See, e.g., C.R. Bard, 157 F.3d at 1352, 48 USPQ2d at 1232. **Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence."** E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact."); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977)." See In re Dembiczak, 175 F. 3d 994 (Fed. Cir. 1999).

- "To prevent the use of hindsight based on the invention to defeat patentability of the invention, **this court requires the examiner to show a motivation to combine the references** that create the case of obviousness. In other words, **the examiner must show reasons** that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references **for combination in the manner claimed**." See In re Rouffet, 149, F.3d 1350 (Fed. Cir. 1998).

B. Paepke Patent

In summary, the Paepke patent describes a method for predicting a user's subjective choices "in which books or other items are paired and all possible combinations of pairs or links are identified. The number of links is reduced based primarily on similarity of rating and secondarily on frequency of rating. The remaining links are used to make <u>a prediction based upon the average rating (z) of the books, as rated by the user</u>, linked to the book of interest plus the difference (δ) between the average rating of the book of interest, as rated by all users, minus the average ratings of the linked books, as rated by all users. The averages of the linked books are weighted by similarity. In an alternative embodiment of the invention, the prediction is based upon the average of values applied to books linked to the book of interest, where the values are based upon <u>ratings of the linked books by the user inquiring about the book of interest</u>." (Emphasis added - Reference is made to Col. 2, lines 27 - 42).

C. Bowman et al. Patent

Briefly, the Bowman et al. patent describes a "software facility for identifying the items most relevant to a current query based on items selected in connection with similar queries. In preferred embodiments of the invention, the facility receives a query specifying one or more query terms. In response, the facility generates a query result identifying a plurality of items that satisfy the query. The facility then produces a ranking value for at least a portion of the items identified in the query result by combining the relative frequencies with which users selected that item from the query results generated from queries specifying each of the terms specified by the query. The facility identifies as most relevant those items having the highest ranking values." (Emphasis added - Refer to the Abstract).

Further, Bowman et al. describe the rating function of their invention as follows: "The rating function preferably retrieves a rating score for the combination of an item and a term from a rating table generated by the facility. The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term. (Emphasis added - Refer to Col. 2, lines 29-35).

Bowman et al. also list the various embodiments for their invention, as follows: "Various embodiments of the invention base rating scores on different kinds of selection actions performed by the users on items identified in query results. These include whether the user displayed additional information about an item, how much time the user spent viewing the additional information about the item, how many hyperlinks the user followed within the additional information about the item, whether the user added the item to his or her shopping basket, and whether the user ultimately purchased the item. Embodiments of the invention also consider selection actions not relating to query results, such as typing an item's item identifier rather than choosing the item from a query result. Additional embodiments of the invention incorporate into the ranking process information about the user submitting the query by maintaining and applying separate rating scores for users in different demographic groups, such as those of the same sex, age, income, or geographic category. Certain embodiments also incorporate behavioral information about specific users. Further, rating scores may be produced by a rating function that combines different types of information reflecting collective and individual user preferences. Some embodiments of the invention utilize specialized strategies for incorporating into the rating scores information about queries submitted in different time frames." (Refer to Col. 7, line 63 - Col. 8, line 19).

D. Brief Summary of the Present Invention

Prior to presenting substantive arguments in favor of the allowability of the claims on file, it might be desirable to summarize the present invention.

As indicated by the title, the present invention relates to a system and method for integrating <u>off-line user ratings of businesses</u> with search engines," and addresses the problem facing current search engines that "use a variety of criteria to order matches to the user query and to rank the search results with higher quality pages listed at the top of the search list. Assessing quality involves both accurately matching the user query and identifying a useful, current web page. <u>For instance, search engines may order the matches based on what is referred to herein as "static criteria". Exemplary static criteria are the highest popularity, most recently updated, most visited, most queried, or most interconnected. It is common for users to limit the review of their search to only the first few matches of the search list."</u> (Reference is made to page 2, line 18 through page 3, line 4 of the specification.)

The present invention also aims at providing an "adequate mechanism by which searches of business sites can be ordered based upon interactive criteria about the businesses themselves, <u>correlating higher quality search matches to higher business satisfaction ratings</u>. <u>For example, popularity, is a commonly used static criterion which is determined by the number of visits or queries of business sites, and which may depend on advertising, strategic business alliances, or creative naming of a site, and is therefore independent of customers satisfaction with the ranked businesses.</u> Therefore, there is still an unsatisfied need for a system and method that integrate user provided interactive criteria, such as customers and on-line <u>users' satisfaction, with search engine results</u>." Reference is made to page 3, lines 12-20 of the specification.

"Methods for collecting these ratings include, but are not limited to offline surveys such as consumers reports and surveys that are obtained through web or non-web based rating services that assess, for example, customer satisfaction. In another embodiment, rankings are provided by an independent ranking system through either offline or on-line surveys and the **rankings are established independent of the search engine or the user of the search engine**. Optionally, on-line questionnaires can be attached to the search engine, and the ratings provided by such on-line questionnaires and offline ratings can be weighted and combined to form a composite rating system.

The business rating system integrates the off-line ratings (and optionally the on-line ratings) with the search results, and ranks and presents the integrated search results to the user based on such ratings. In this manner, the user of a search engine receives feedback from other off-line and possibly on-line users and/or customers about businesses of interest. Those businesses with higher ratings are ranked at the top of the search list.

In operation, the user enters a query in the user interface of the search engine. The search engine searches the metadata repository for sites that match the user query, and also searches the business ratings repository. One or more sites in the metadata search results may correspond to matches in the business ratings search. The search engine determines the rank of each corresponding site in the ranking database and ranks the search results based on interactive criteria about the businesses. The ranked results are then presented to the on-line user." Reference is made to page 4, line 4 through page 5, line 15 of the specification, with emphasis added.

E. Claim 1 and its Dependent Claims 2-8.

Applicant will now present arguments in support of allowance of the independent claim 1 over the obviousness rejection in view of the Paepke and the Bowman et al. patents. Claim 1 recites the following elements which, in combination with the other elements and limitations, are not described in either Paepke, Bowman et al., or the combination thereof:

> "1. (Once amended) A system for use with a search engine to rank search results, comprising:
> an off-line ranking system for receiving rating data compiled from an off-line source based on <u>interactive criteria that include feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user;</u>
> <u>wherein the rating data correlates higher quality search matches to higher business satisfaction ratings; and</u>
> <u>wherein the off-line ranking system indexes</u> the rating data;
> a ranking repository ...; and
> a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches." (Emphasis added).

The present invention as recited in claim 1, distinguishes over the Paepke patent, in that **the Paepke patent does not teach: (1) the use of an-off line ranking system that based on feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user; or (2) a result sorter as stated by the Examiner in the office action.**

In fact, the Paepke patent describes a method related primarily to books that identifies pairs or links, whose number is reduced based primarily on similarity of rating and secondarily on frequency of rating. The remaining links are used to make <u>a prediction based upon the average rating (z) of the books, as rated by the user.</u> As a result, <u>the ranking system of the Paepke patent</u> depends on the rating by the user, and as such, it <u>might not be readily usable in an Internet environment where the user's ranking is not always available</u>. On the other hand, the ranking system of the present

invention is readily available to any user in that it does not rely on a particular user's ranking.

The Bowman et al. does not teach this missing element, and as such the combination of the Paepke patent and the Bowman et al. patent is not permissible under the legal standards of obviousness (Refer to section "A" above). Even if such a combination were hypothetically allowable, such combination would still not form an adequate ground for an obviousness rejection in that the Bowman design relies on "**the number of visits or queries of business sites," in that, contrary to the present invention, the Bowman design may not be too reliable because it "may depend on advertising, strategic business alliances, or creative naming of a site**".

To conclude, independent claim 1 is not anticipated Paepke patent or the Bowman et al. patent, whether considered separately or in combination with each other. As a result, claim 1 and the claims dependent thereon (claims 2 - 8) are allowable, and such allowance is respectfully requested.

F. Claims 9 - 24

Independent claims 9 and 17 are allowable for similar reasons as presented earlier in favor of allowance of claim 1, since claims 9 and 17 contain substantially similar elements and limitations as in claim 1. As a result, the independent claims 9 and 17 and the claims dependent thereon (claims 10 - 16, and 18 - 24) are allowable, and such allowance is respectfully requested.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

THE SPECIFICATION

Page 1 of the specification has been amended as follows:

--CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to patent application Serial No. [_____] 09/488,470 titled "System and Method for Integrating On-Line Ratings of Businesses with Search Engines" which is filed by the same assignee as this application on even date herewith, and which is incorporated herein by reference in its entirety.--

THE CLAIMS

Claims 1, 9, and 17 have been amended, as follows:

1. (Once amended) A system for use with a search engine to rank search results, comprising:

an off-line ranking system for receiving rating data compiled from an off-line source based on interactive criteria that include feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user;

wherein the rating data correlates higher quality search matches to higher business satisfaction ratings; and

wherein the off-line ranking system indexes [, and for indexing] the rating data;

a ranking repository for storing the rating data indexed by the off-line ranking system; and

a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

9. (Once amended) A computer program product for use with a search engine to rank search results, comprising:

an off-line ranking system for receiving rating data compiled from an off-line source based on interactive criteria that include feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user;

wherein the rating data correlates higher quality search matches to higher business satisfaction ratings; and

wherein the off-line ranking system indexes [, and for indexing] the rating data;

a ranking repository for storing the rating data indexed by the off-line ranking system; and

a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

17. (Once amended) A method for use with a search engine to rank search results, comprising:

receiving rating data compiled from an off-line source based on interactive criteria[, and] that include feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user;

the rating data correlating higher quality search matches to higher business satisfaction ratings;

indexing the rating data by means of an off-line ranking system;

storing the rating data indexed by the off-line ranking system, in a ranking repository; and

sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

CONCLUSION

All the claims presently on file in the present application are in condition for immediate allowance, and such action is respectfully requested. If it is felt for any reason that direct communication would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned at the below-listed telephone number.

Respectfully submitted,

Date: <u>May 13, 2002</u>

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